

RLi 3/19/2004

~~ADP-GLUCOSE RECEPTOR~~
METHODS OF IDENTIFYING AN ADP-GLUCOSE RECEPTOR LIGAND,
AGONIST OR ANTAGONIST

This application claims the benefit of U.S.
Provisional Application No. 60/234,025, filed September
20, 2000, and is incorporated herein by reference.

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BACKGROUND OF THE INVENTION

The present invention relates generally to the
field of G-protein coupled receptors and, more
specifically, to therapeutic and diagnostic compositions
10 and methods relating to ADP-glucose receptor.

G-protein coupled receptors (GPCRs) comprise a
large and growing family of integral membrane proteins
which transduce extracellular signals into cellular
responses. The natural agonists of different GPCRs range
15 from peptide and non-peptide neurotransmitters, hormones
and growth factors, to lipids, nucleoside-sugars, amino
acids, light and odorants.

G-protein coupled receptors are involved in a
variety of critical biological functions, and have proven
20 to be important pharmacological targets. It is estimated
that over 50% of current drugs are targeted towards
GPCRs, and represent about a quarter of the 100 top-
selling drugs worldwide. G-protein coupled receptors are
also linked to a large number of hereditary diseases.

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Thus, there exists a need to identify novel
G-protein coupled receptors and their ligands, to
identify the physiological function of such receptors,
and to develop methods of screening for therapeutic